

Appl. No. 10/675,367
Amtd. Dated 5 February 2009

RECEIVED Docket No. 132347-1
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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A nickel-containing alloy comprising:
about 1.5 to about 4.5 weight percent aluminum;
about 1.5 to about 4.5 weight percent titanium;
about 0.8 to about 3 weight percent niobium;
about 14 to about 28 weight percent chromium;
up to about 0.2 weight percent zirconium;
about 10 to about 23 weight percent cobalt;
about 1 to about 3 weight percent tungsten; and
about 40 to about 70 weight percent nickel, and wherein the atomic ratio of aluminum to titanium is about 0.5 to about 1.5, with the proviso that the nickel-containing alloy is substantially devoid of tantalum.
2. (Previously Presented) The nickel-containing alloy of Claim 1, wherein a sum of the amount of aluminum and titanium is about 3 to about 9 weight percent, of the nickel-containing alloy.
3. (Canceled).
4. (Original) The nickel-containing alloy of Claim 1, wherein a sum of the titanium, aluminum and niobium is about 3 to about 12 weight percent, of the nickel-containing alloy.
5. (Canceled)
6. (Currently Amended) The nickel-containing alloy of Claim 1, further comprising carbon, zirconia, boron, hafnium, rhenium, ruthenium, or a combination comprising at least one of the foregoing.
7. (Canceled)

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8. (Original) The nickel-containing alloy of Claim 6, wherein the carbon is present in an amount of about 0.02 to about 0.15 weight percent, of the nickel-containing alloy.

9. (Cancelled)

10. (Original) The nickel-containing alloy of Claim 6, wherein the boron is present in an amount of about 0.001 to about 0.025 weight percent, of the nickel-containing alloy.

11. (Withdrawn – Currently Amended) A nickel-containing alloy, consisting essentially of:

about 1.6 to about 1.8 weight percent aluminum;
about 2.2 to about 2.4 weight percent titanium;
about 1.25 to 1.45 weight percent niobium;
about 22 to about 23 weight percent chromium;
about 18.5 to about 19.5 weight percent cobalt;
about 0.08 to about 0.12 weight percent carbon;
about 1.9 to about 2.1 weight percent tungsten;
and about 0.002 to about 0.006 weight percent boron;
up to 0.01 weight percent zirconium; with the remainder being nickel.

12. (Withdrawn – Currently Amended) The nickel-containing alloy of Claim 11, wherein the zirconium is substituted with hafnium.

13. (Withdrawn) A method for manufacturing an article comprising:
casting an alloy comprising about 1.5 to about 4.5 weight percent aluminum; about 1.5 to about 4.5 weight percent titanium; up to about 3 weight percent niobium; about 14 to about 28 weight percent chromium; about 10 to 23 weight percent cobalt; about 1 to about 3 weight percent of tungsten, rhenium, ruthenium, molybdenum, or a combination thereof; about 0.02 to about 0.15 weight percent of carbon; about 0.001 to about 0.025 weight percent of boron; up to 0.2 weight percent of zirconium, hafnium, or a combination thereof; into a mold; and
solidifying the casting.

14. (Withdrawn) The method of Claim 13, further comprising directionally solidifying the casting.

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15. (Withdrawn) The method of Claim 13, wherein the casting is an equiaxed casting.
16. (Withdrawn) The method of Claim 13, further comprising heat treating the casting at a temperature of about 1095 to about 1200°C.
17. (Withdrawn) The method of Claim 16, wherein the heat treatment is conducted for a period of about 1 to about 4 hours.
18. (Withdrawn) The method of Claim 13, further comprising solution heat treating the casting at a temperature of about 750 to about 850°C.
19. (Original) A turbine component manufactured from the composition of Claim 1.
20. (Withdrawn) A turbine component manufactured from the composition of Claim 11.
21. (Withdrawn) A turbine component manufactured by the method of Claim 13.
22. (Previously Presented) The nickel-containing alloy of claim 1 wherein the niobium is present in an amount of about 1.25 to about 3 weight percent, of the nickel-containing alloy, and
23. (Previously Presented) The nickel-containing alloy of claim 1 wherein the chromium is present in an amount of about 20 to 25 weight percent, of the nickel-containing alloy.